[0081] FIG. **5** is a cross-sectional view showing a structure of a semiconductor image sensing device **30** constructed by using the semiconductor image sensing element **10** according to the present embodiment. The semiconductor image sensing device **30** according to the present embodiment comprises: the semiconductor image sensing element **10**; a package **31** having a mounting portion **32***a* to which the semiconductor image sensing element **10** is fixed and metal thin wire connection portions **33***a;* a fastening member **34** for fastening the semiconductor image sensing element **10** to the mounting portion **32***a* of the package **31**; metal thin wires **35** for providing connection between the electrode portions **15** of the semiconductor image sensing element **10** and the metal thin wire connection portions **33***a;* and a burying resin **36** for burying the metal thin wires **35** therein and protecting them.

[0082] The package substrate **32** of the package **31** is formed with a cavity into which the semiconductor image sensing element **10** is fastened by using the fastening member **34**. The package substrate **32** is also provided with terminal pins **33** connected to or integrally formed with the metal thin wire connection portions **33***a.* The inner surface of the cavity has been processed into a pear-shaped configuration for preventing reflection. The semiconductor image sensing element **10** is bonded to the mounting portion **32***a* of the cavity by using the fastening member **34** made of an epoxy resin, a polyimide resin, or the like. The metal thin wires **35** such as gold wires, copper wires, aluminum wires, or the like provide connection between the plurality of electrode portions **15** arranged on the peripheral circuit region **14** of the principal surface of the semiconductor image sensing element **10** and the metal thin wire connection portions **33***a* of the package **31**.

[0083] In the cavity of the package **31** accommodating the semiconductor image sensing element **10** therein, the light-shielding burying resin **36** made of an epoxy resin or a polyimide resin is filled to a height which allows the metal wires **35** to be buried in the burying resin **36**. Thus, the semiconductor image sensing device **30** is obtained.

[0084] Although the present embodiment has formed the semiconductor image sensing device **30** by using the package **31** with leads, the present invention is not limited thereto. For example, it is also possible to die-bond the semiconductor image sensing element onto a mounting substrate, provide connection by using metal thin wires, and then fill the burying resin such that the metal thin wires are buried therein. Alternatively, a leadless package may also be used instead.

[0085] In the arrangement, the light shielding film **19** is formed on the side surface region of the optical member **18** and the metal thin wires **35** are covered with the light-shielding burying resin **36**. This allows reliable prevention of the incidence of a reflected light beam or a scattered light beam from the metal thin wires **35** on the image sensing area **13** and the occurrence of flare, smear, or the like. This also allows the generally thin and compact semiconductor image sensing device **30** to be implemented.

[0086] A description will be given herein below to a method for fabricating the semiconductor image sensing device **30** according to the present embodiment with reference to FIGS. **6**A to **6**D. FIGS. **6**A to **6**D are cross-sectional views illustrating the main process steps for fabricating the semiconductor image sensing device **30** according to the present embodiment.

[0087] First, as shown in FIG. **6**A, the semiconductor image sensing element **10** having a structure in which the optical member **18** is bonded over the surface of the image sensing area **13** which is formed with the micro-lenses **16** is prepared. The light shielding film **19** has been formed on the side surface region of the optical member **18**.

[0088] Next, as shown in FIG. **6**B, the package **31** comprised of the package substrate **32** having the cavity and the mounting portion **32***a* provided on the bottom portion of the cavity and the terminal pins **33** provided on the package substrate **32** is prepared. Preferably, the inner surface of the cavity of the package substrate **32** of the package **31** is formed into a rough surface since it can also prevent the incidence of a reflected light beam on the image sensing area **13** or the like. However, such processing for forming a rough surface is not necessarily needed. At this time, the cavity of the package **31** is designed to have a depth equal to or more than the thickness of the semiconductor image sensing element **10**.

[0089] Next, as shown in FIG. **6**C, the fixing member **34** is coated on the mounting portion **32***a*. The fixing member **34** can be coated by, e.g., a multiple-shot dispensing method or a drawing method. Thereafter, the semiconductor image sensing element **10** is placed on the mounting portion **32***a* and bonded by using the fastening member **34**, while the parallelism of the primary surface of the semiconductor image sensing element **10** is maintained. Further, the electrode portions **15** of the semiconductor image sensing element **10** and the metal thin wire connection portions **33***a* are connected by wire bonding using the metal thin wires **35**, whereby the electric connection of the semiconductor image sensing element **10** and the terminal pins **33** of the package **31** is completed.

[0090] Next, as shown in FIG. **6**D, the light-shielding burying resin **36** is filled in the gap between the semiconductor image sensing element **10** mounted in the cavity of the package **31** and the sidewall of the cavity to a height which allows the metal thin wires **35** to be buried in the burying resin **36** by using, e.g., a dispenser or the like. Then, the package **31** is heated to cure the burying resin **36**, whereby the semiconductor image sensing device **30** according to the present embodiment is obtainable.

[0091] In the semiconductor image sensing device **30** fabricated by such a method, the incidence of a reflected light beam or a scattered light beam from the metal thin wires **35** or the like on the image sensing area can be reliably prevented by the burying resin **36** covering the meta thin wires **35** and by the light shielding film **19** of the optical member **18**. As a result, the semiconductor image sensing device **30** in which optical noise such as flare or smear is prevented and which has excellent properties can be fabricated in simple and easy process steps.

[0092] The semiconductor image sensing device **30** according to the present embodiment is not limited to the semiconductor element **10** shown in FIG. **1**. Instead of the semiconductor element **10**, a semiconductor element using the optical member shown in any of FIGS. **4**A to **4**D may also be used. The burying resin is not limited to a light